Mathematics

By the end of grade four, students understand large numbers and addition, subtraction, multiplication, and division of whole numbers. They describe and compare simple fractions and decimals. They understand the properties of, and the relationships between, plane geometric figures. They collect, represent, and analyze data to answer questions.

Number Sense

Students:

- Understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions, and use the concepts of negative numbers.
- Extend their use and understanding of whole numbers to the addition and subtraction of simple decimals.
- Solve problems involving addition, subtraction, multiplication, and division of whole numbers and understand the relationships among the operations.
- Know how to factor small whole numbers.

Algebra and Functions

Students:

- Use and interpret variables, mathematical symbols, and properties to write and simplify expressions and sentences.
- Know how to manipulate equations.

Measurement and Geometry

Students:

- Understand perimeter and area.
- Use two-dimensional coordinate grids to represent points and graph lines and simple figures.
- Demonstrate an understanding of plane and solid geometric objects and use this knowledge to show relationships and solve problems.

Statistics, Data Analysis, and Probability

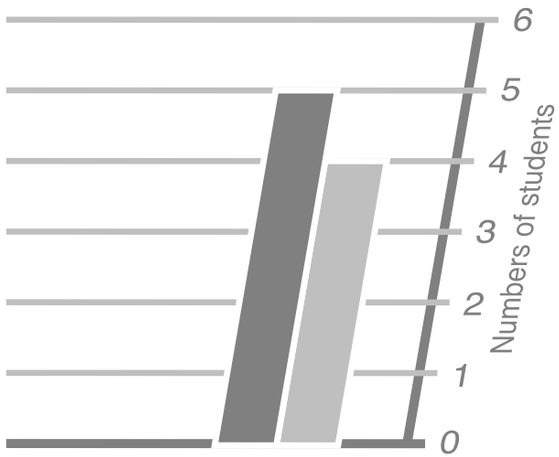
Students:

- Organize, represent, and interpret numerical and categorical data and clearly communicate their findings.
- Make predictions for simple probability situations.

Mathematical Reasoning

Students:

- Make decisions about how to approach problems.
- Use strategies, skills, and concepts in finding solutions.
- Move beyond a particular problem by generalizing to other situations.



Science

Physical Sciences

- Electricity and magnetism are related effects that have many useful applications in everyday life.

Life Sciences

- All organisms need energy and matter to live and grow.
- Living organisms depend on one another and on their environment for survival.

Earth Sciences

- The properties of rocks and minerals reflect the process that formed them.
- Waves, wind, water, and ice shape and reshape Earth's land surface.

Investigation and Experimentation

- Scientific progress is made by asking meaningful questions and conducting careful investigations. To understand this concept and to address the content in the other three strands, students should develop their own questions and perform investigations.

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GRADE FOUR

The California Content Standards for Grade Four

CALIFORNIA DEPARTMENT OF EDUCATION
2000

Dear Parent/Guardian,

Well-communicated standards provide you with the information you need to have a better understanding of what your child is to learn in a specific grade level and in a specific subject. Your knowledge of the standards will help you frame your questions for parent-teacher conferences and counselor conferences; select reading and writing materials for the home; and shape your visits to public libraries and other places of interest.

GRADE FOUR

English–Language Arts

READING

Word Analysis, Fluency, and Systematic Vocabulary Development

- Students understand the basic features of reading. They select letter patterns and know how to translate them into spoken language by using phonics, syllabication, and word parts. They apply this knowledge to achieve fluent oral and silent reading.

Reading Comprehension

- Students read and understand grade-level-appropriate material. They draw upon a variety of comprehension strategies as needed (e.g., generating and responding to essential questions, making predictions, comparing information from several sources). The selections in *Recommended Readings in Literature, Kindergarten Through Grade Eight* illustrate the quality and complexity of the materials to be read by students. In addition to their regular school reading, students read one-half million words annually, including a good representation of grade-level-appropriate narrative and expository text (e.g., classic and contemporary literature, magazines, newspapers, online information).

Literary Response and Analysis

- Students read and respond to a wide variety of significant works of children's literature. They distinguish between the structural features of the text and the literary terms or elements (e.g., theme, plot, setting, characters). The selections in *Recommended Readings in Literature, Kindergarten Through Grade Eight* illustrate the quality and complexity of the materials to be read by students.

WRITING

Writing Strategies

- Students write clear, coherent sentences and paragraphs that develop a central idea. Their writing shows they consider the audience and purpose. Students progress through the stages of the writing process (e.g., pre-writing, drafting, revising, editing successive versions).

Writing Applications

- Students write compositions that describe and explain familiar objects, events, and experiences. Student writing demonstrates a command of standard American English and the drafting, research, and organizational strategies outlined in Writing Standard 1.0.

WRITTEN AND ORAL ENGLISH LANGUAGE CONVENTIONS

- Students write and speak with a command of standard English conventions appropriate to this grade level.

LISTENING AND SPEAKING

Listening and Speaking

- Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

Speaking Applications

- Students deliver brief recitations and oral presentations about familiar experiences or interests that are organized around a coherent thesis statement. Student speaking demonstrates a command of standard American English and the organizational and delivery strategies outlined in Listening and Speaking Standard 1.0.

History–Social Science

Students learn the story of their home state, unique in American history in terms of its vast and varied geography, its many waves of immigration beginning with pre-Columbian societies, its continuous diversity, economic energy, and rapid growth. In addition to the specific treatment of milestones in California history, students examine the state in the context of the rest of the nation, with an emphasis on the U.S. Constitution and the relationship between state and federal government.

Students:

- Demonstrate an understanding of the physical and human geographic features that define places and regions in California.
- Describe the social, political, cultural and economic life and interactions among people of California from the pre-Columbian societies to the Spanish mission and Mexican rancho periods.
- Explain the economic, social, and political life of California from the establishment of the Bear Flag Republic through the Mexican-American War, the Gold Rush and California statehood.
- Explain how California became an agricultural and industrial power, tracing the transformation of the California economy and its political and cultural development since the 1850s.
- Understand the structures, functions, and powers of the local, state, and federal governments as described in the U.S. Constitution.